



HEIDENHAIN

Montageanleitung
Mounting Instructions
Instructions de montage
Istruzioni di montaggio
Instrucciones de montaje

LC 491 F

FANUC SERIAL Interface

2/2005

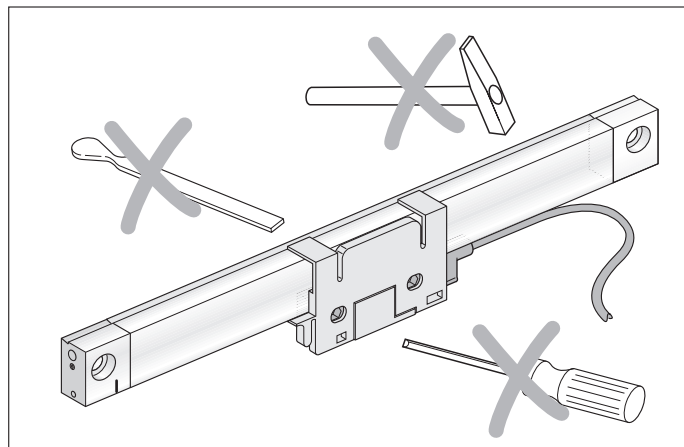
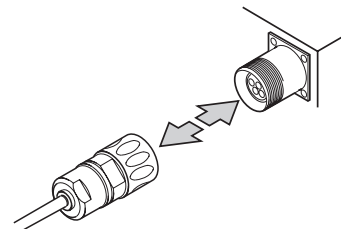
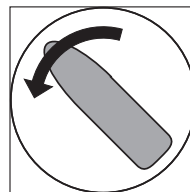


DIN EN 100 015 – 1
CECC 00015 – 1



0

I



Maße in mm
Dimensions in mm
Cotes en mm
Dimensioni in mm
Dimensiones en mm



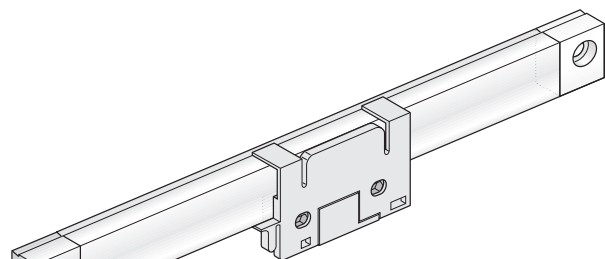
Die Inbetriebnahme des LC 491 F erfordert eine richtige Parametrierung der FANUC-Steuerung (Gefahr von Sach- und Personenschäden). Zur richtigen Parametrierung nehmen Sie bitte Kontakt zum Hersteller der Maschine auf.

The FANUC control parameters for the LC 491 F must be correctly configured for proper function. Improper configuration may result in damage to the equipment or even personal injury. Please contact the machine manufacture for the correct parameter configuration.

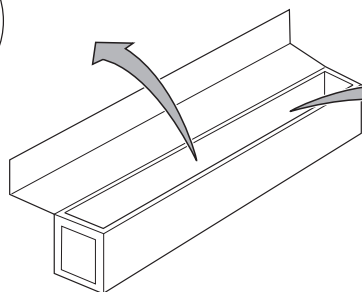
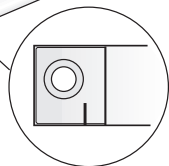
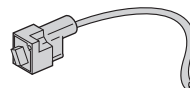
La mise en route du LC 491 F nécessite un paramétrage correct de la commande FANUC (risque matériels et corporels). Pour effectuer le paramétrage correctement, prenez S.V.P. contact avec le constructeur de la machine.

La messa in funzione della LC 491 F richiede una corretta parametrizzazione del controllo FANUC (rischio di danni alle cose e alle persone). Per una corretta parametrizzazione mettersi in contatto con il costruttore della macchina.

La puesta en marcha de la LC 491 F requiere una parametrización correcta del sistema de medida FANUC (peligro de daños en cosas y personas). Para la parametrización correcta contacten con el constructor de la máquina.



Separat bestellen
Order separately
 A commander séparément
Ordinare a parte
 Para pedir por separado

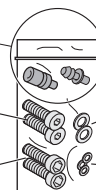


17



2x
 M8x25 DIN 6912

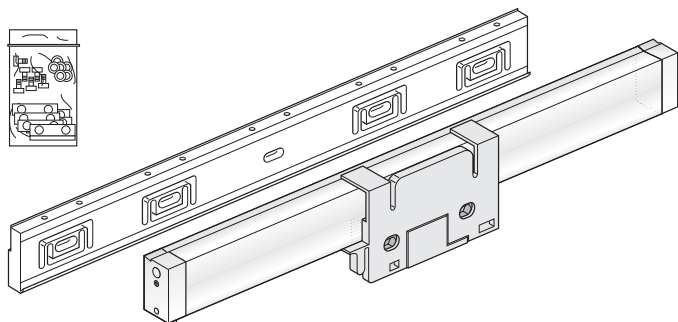
2x
 M8x25 ISO 4762



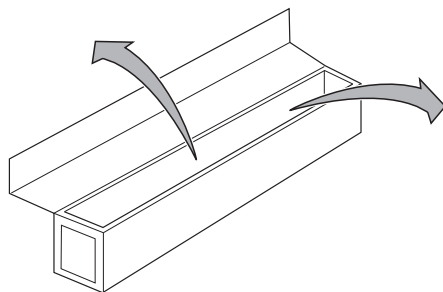
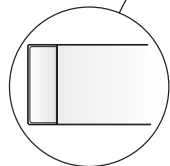
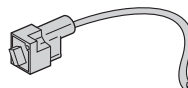
2x
 D13.0/8.4
 3x
 D7.0/4.3



Bei Montage bitte Geräteschild-Aufkleber anbringen (Schaltschrank, Maschinen-Handbuch usw.)
Apply the encoder ID label to an appropriate surface, e.g. the electrical cabinet or machine manual
 lors du montage, accoler S.V.P. l'étiquette signalétique de l'appareil (armoire électrique, manuel de la machine, etc.)
completato il montaggio, ricordarsi di applicare l'etichetta (manuale della macchina, quadro elettrico)
 por favor, durante el montaje, colocar el adhesivo del letrero del aparato (armario eléctrico, modo de empleo de la máquina, etc.)



Separat bestellen
 Order separately
 A commander séparément
 Ordinare a parte
 Para pedir por separado

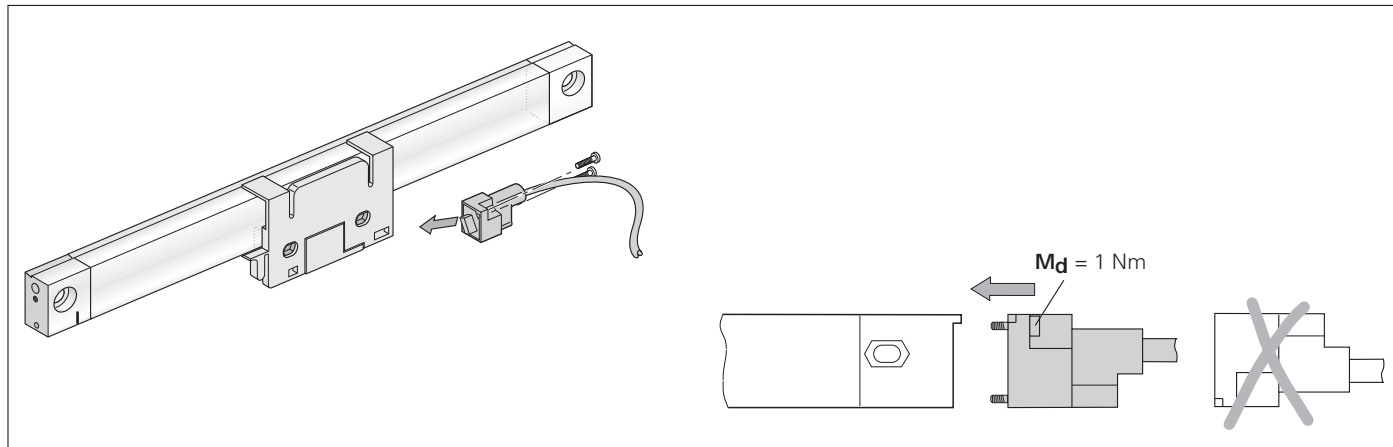


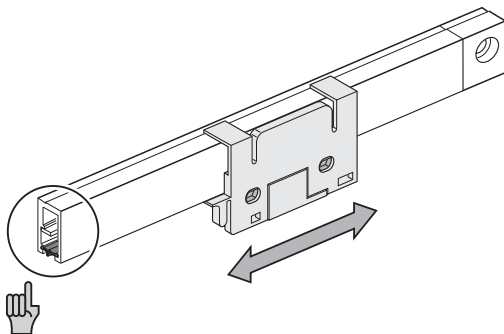
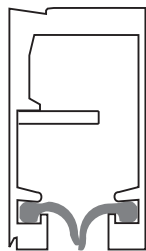
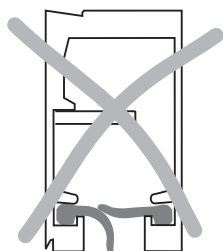
17



3x
 D7.0/4.3

Bei Montage bitte Geräteschild-Aufkleber anbringen (Schaltschrank, Maschinen-Handbuch usw.)
 Apply the encoder ID label to an appropriate surface, e.g. the electrical cabinet or machine manual
 lors du montage, accoler S.V.P. l'étiquette signalétique de l'appareil (armoire électrique, manuel de la machine, etc.)
 completato il montaggio, ricordarsi di applicare l'etichetta (manuale della macchina, quadro elettrico)
 por favor, durante el montaje, colocar el adhesivo del letrero del aparato (armario eléctrico, modo de empleo de la máquina, etc.)





Achtung: Nur mit Transportsicherung manuell verfahren!

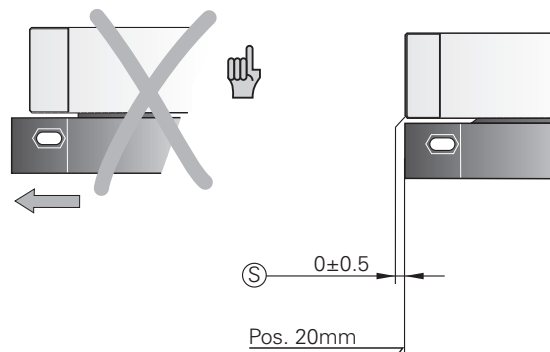
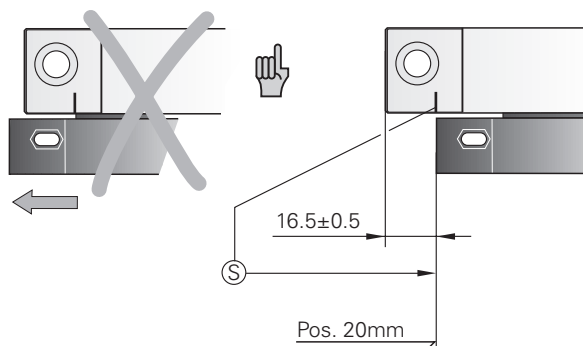
Caution: Move manually only with the shipping brace!

Attention: déplacement manuel seulement avec sécurité de transport!

Attenzione: Muovere manualmente solo con dispositivo di sicurezza per il trasporto installato

¡Atención: Desplazar manualmente sólo con seguro de transporte!

Hinweise zur Montage · Mounting Procedure · Procédures pour le montage



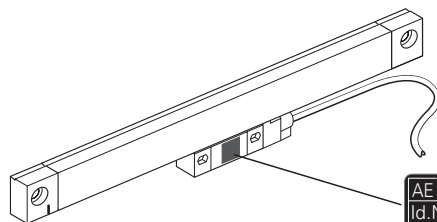
Ⓢ = Der Absolutwert beim Beginn der Messlängen beträgt 20 mm. Je nach Auflösung errechnet sich der Positions Wert.

At the beginning of the measuring lengths, the absolute value is 20 mm. The calculated position value depends on the resolution.

La valeur absolue au début des longueurs de mesure est de 20 mm. La valeur de position est calculée en fonction de la résolution.

All'inizio della corsa utile, il valore assoluto della posizione è di 20 mm. Il calcolo del valore di posizione dipende dalla risoluzione.

Al comienzo del curso útil, el valor absoluto es de 20 mm de los extremos. El valor de posición se calcula en función de la resolución.



Messschritt z.B. 50 nm oder 0 = programmierbar für Service

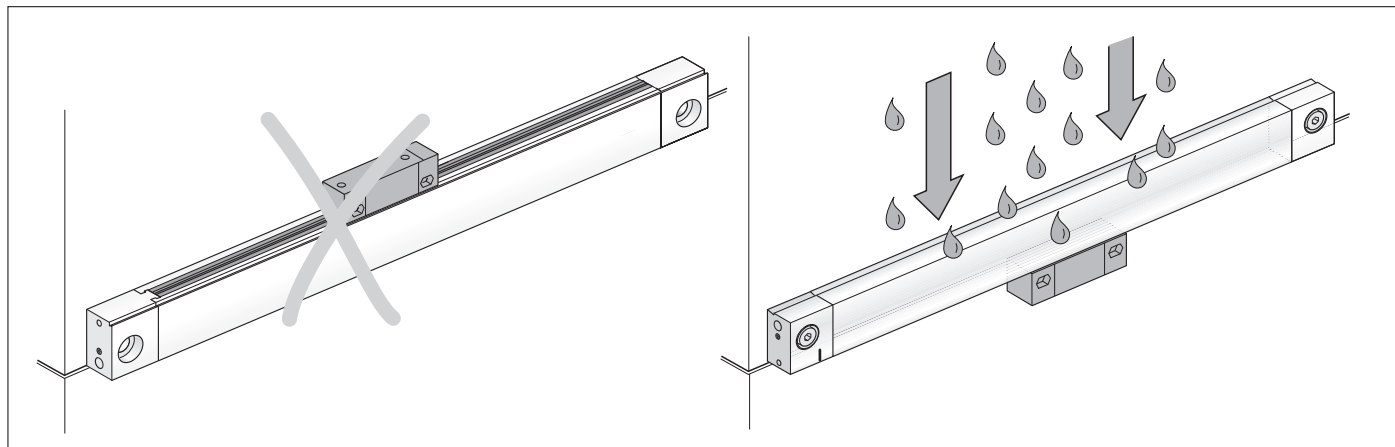
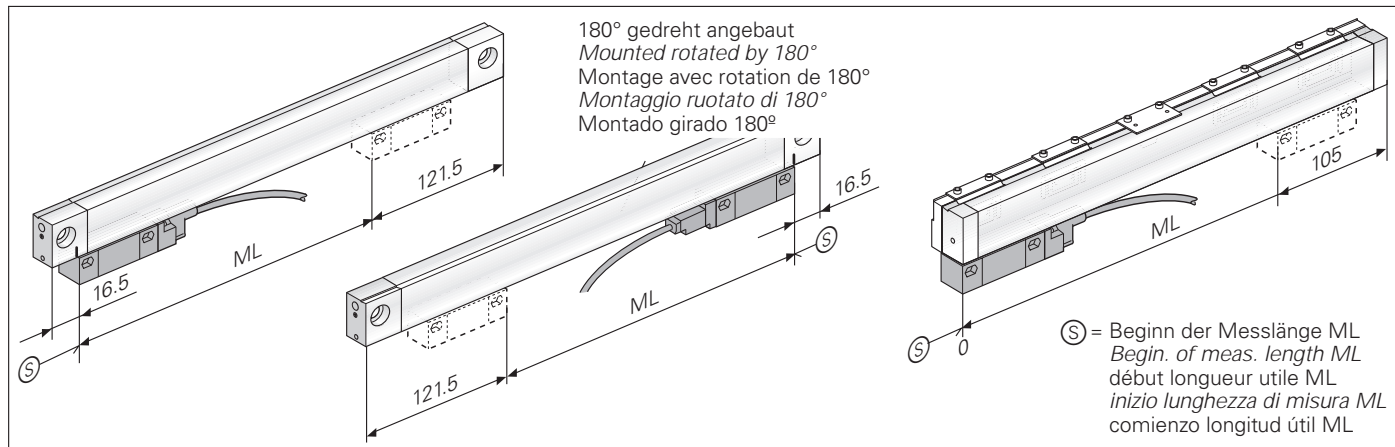
Measuring step e.g. 50 nm or 0 = programmable for Service

Pas de mesure ex. 50 nm ou 0 = programmable pour SAV

Passo di misura ad. es. 50 nm oppure 0 = programmabile per assistenza tecnica

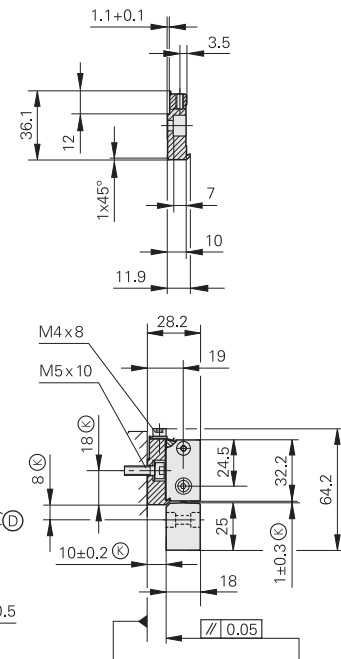
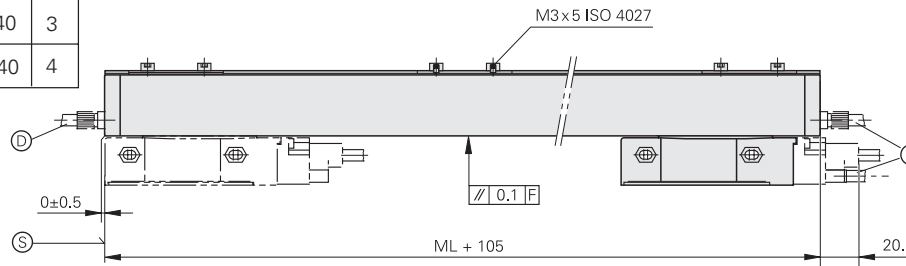
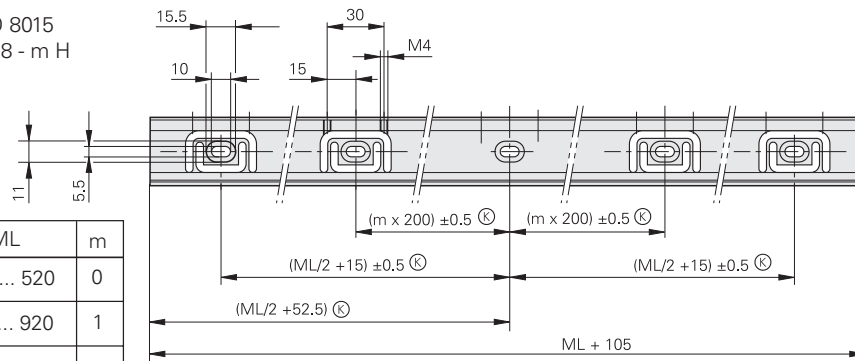
Paso de medición p.ej. 50 nm ó 0 = programable para servicio

Avvertenze per il montaggio · Indicaciones para el montaje



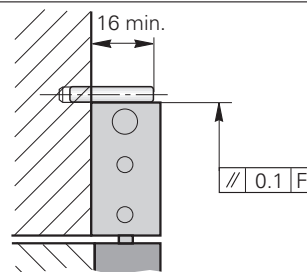
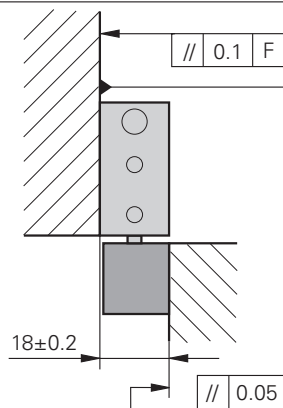
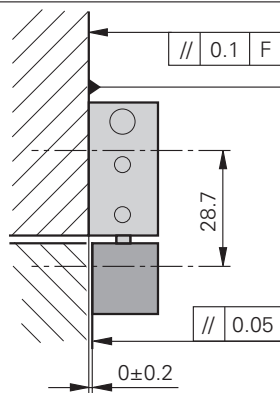
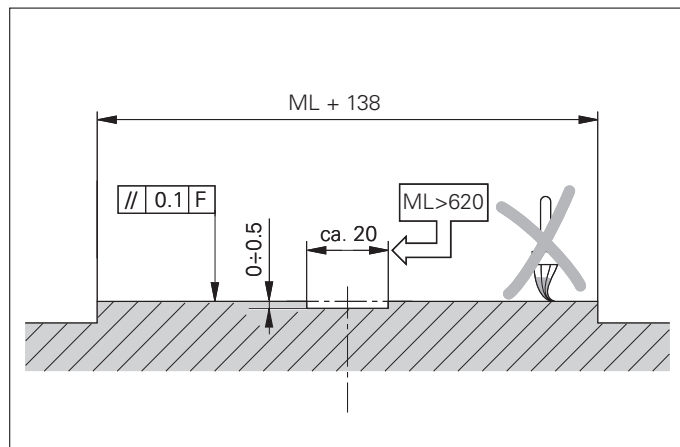
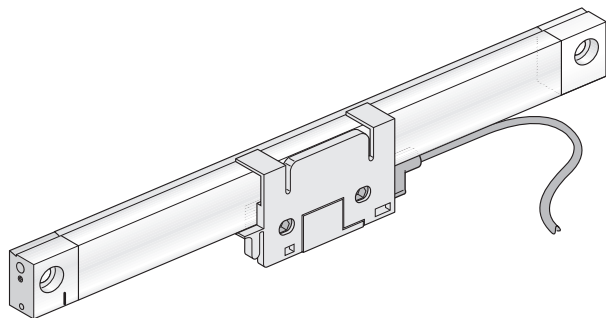
DIN ISO 8015
ISO 2768 - m H

ML	m
70 ... 520	0
570 ... 920	1
1020 ... 1340	2
1440 ... 1740	3
1840 ... 2040	4

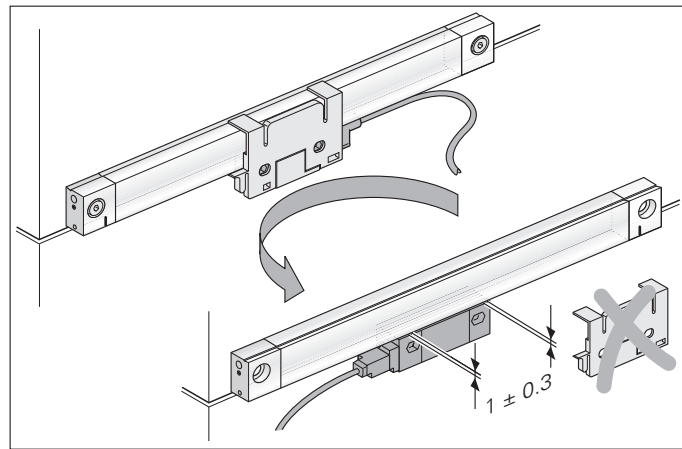
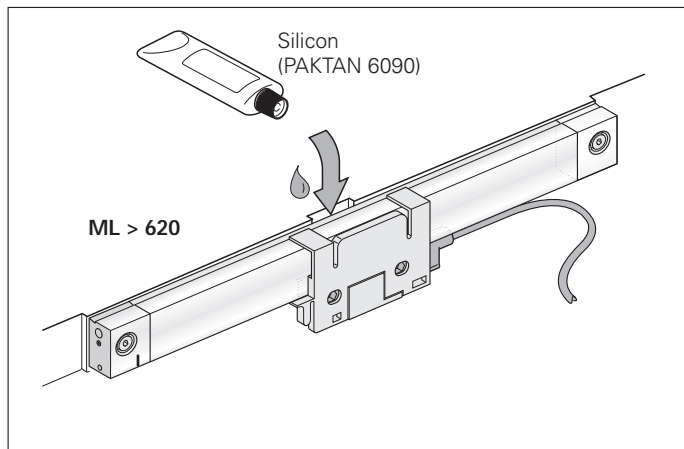
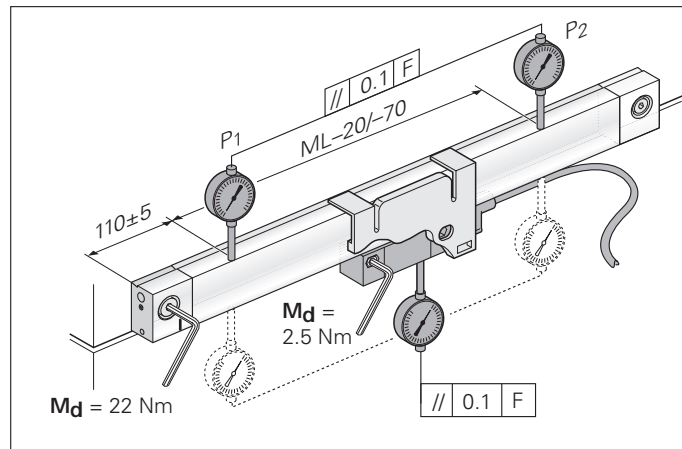
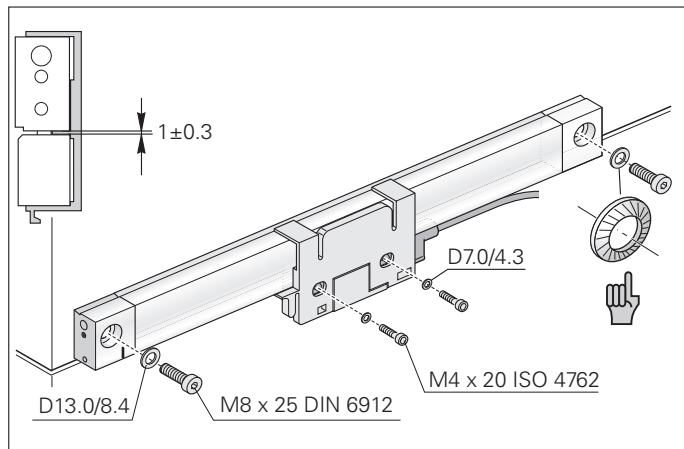


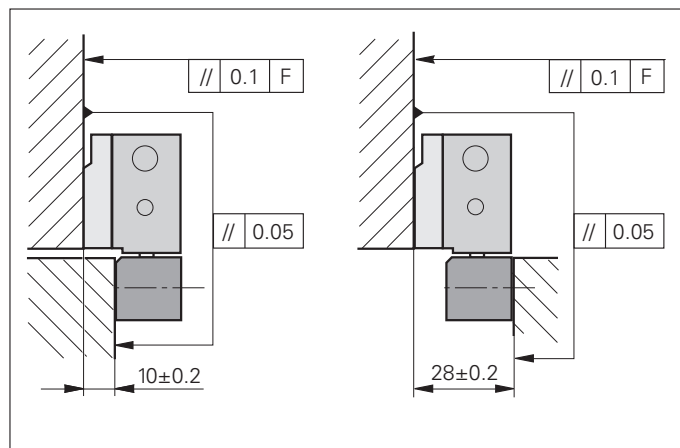
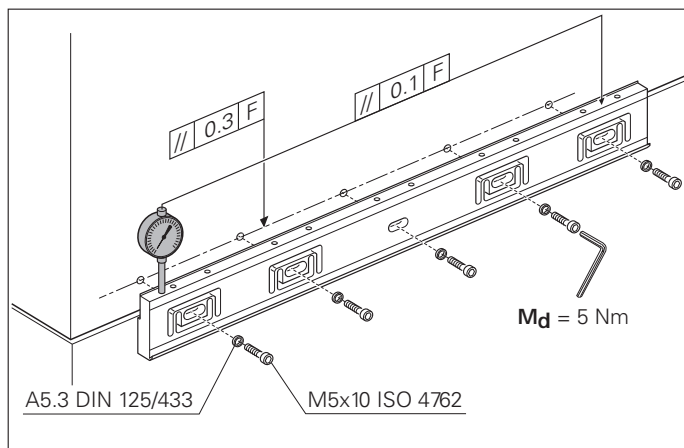
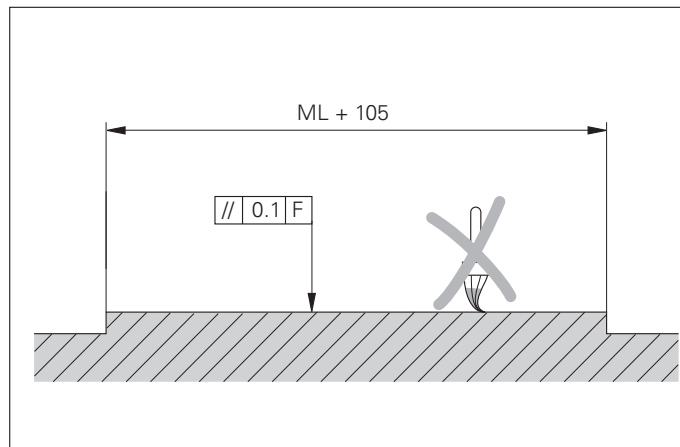
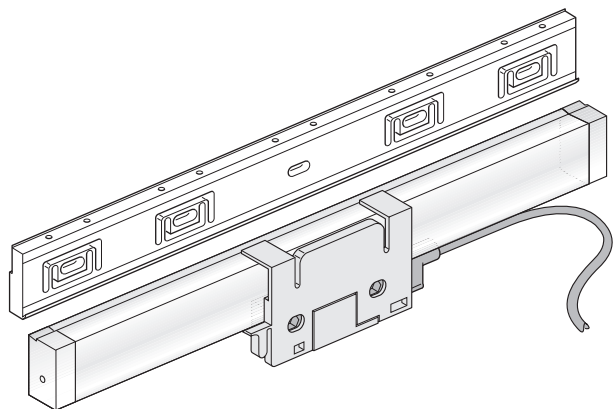
Ⓚ = Kundenseitige Anschlussmaße
Required mating dimensions
 conditions requises pour le montage
dimensioni di collegamento lato cliente
 cotas de montaje requeridas

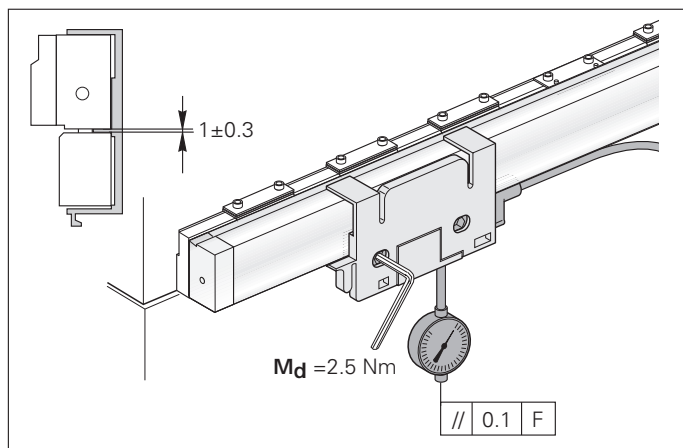
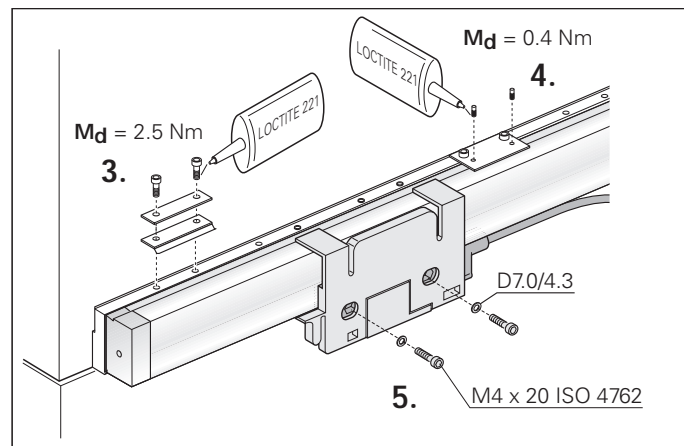
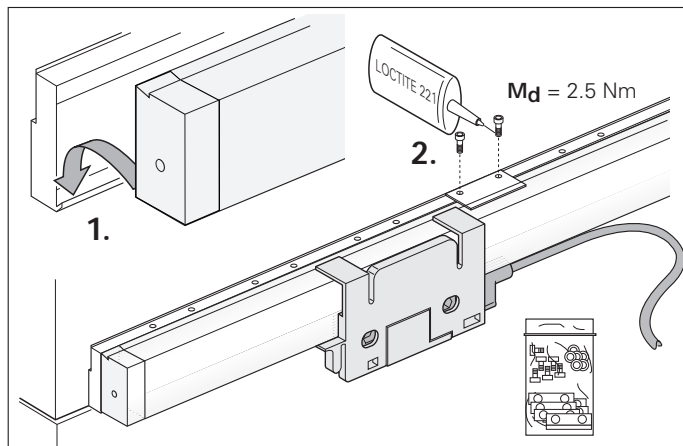
F = Maschinenführung
Machine guideway
guidage de la machine
guida della macchina
guía de la máquina

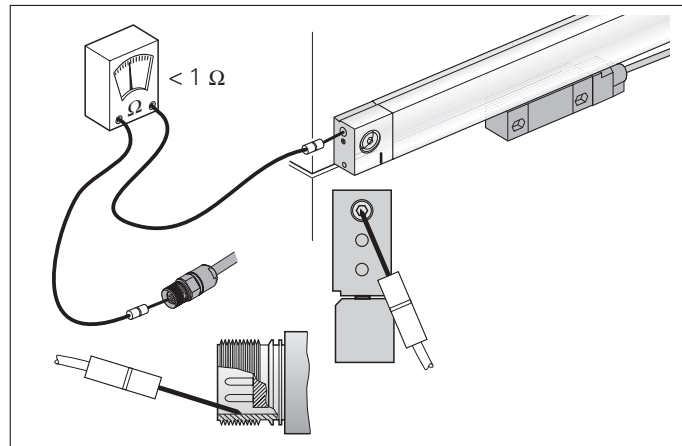
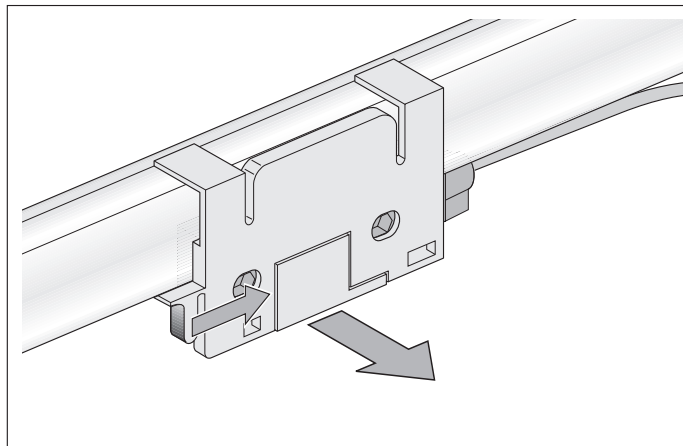


weitere Anbaumöglichkeit mit Anschlagstifte
Additional mounting option with stop pins
 autre possibilité de montage avec goupilles d'arrêt
 altra possibilità di montaggio con perno di battuta
 otra posibilidad de montaje con espigas de ajuste









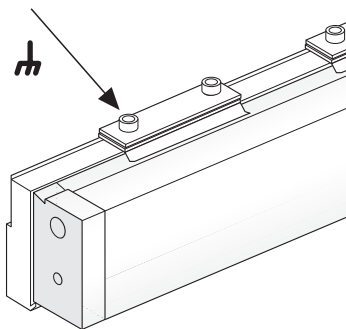
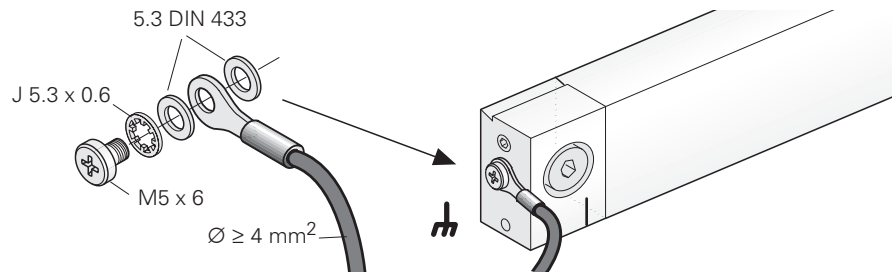
Bei Erdungsproblemen zusätzlich Endstück oder Montageschiene erden!

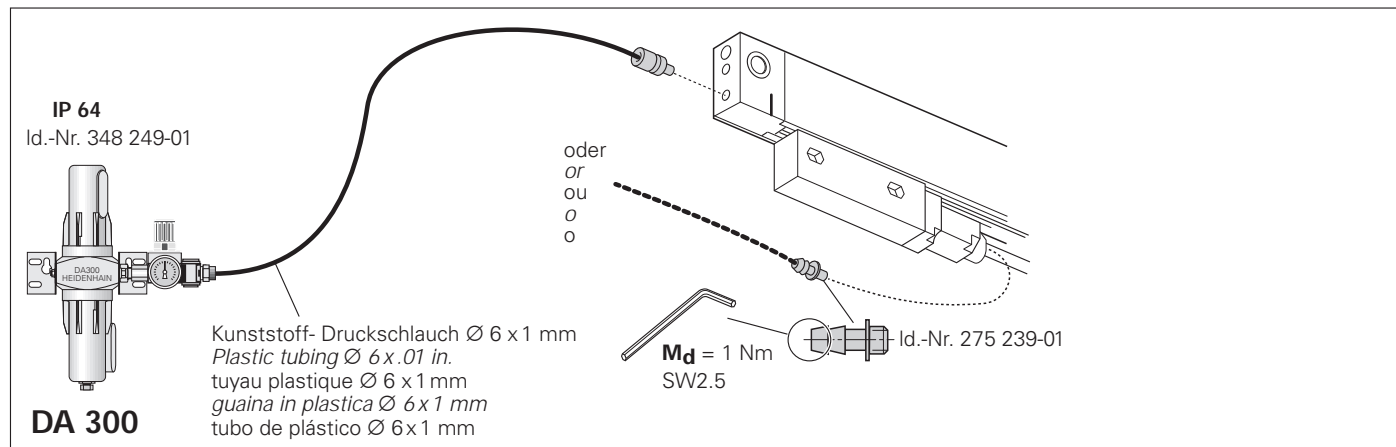
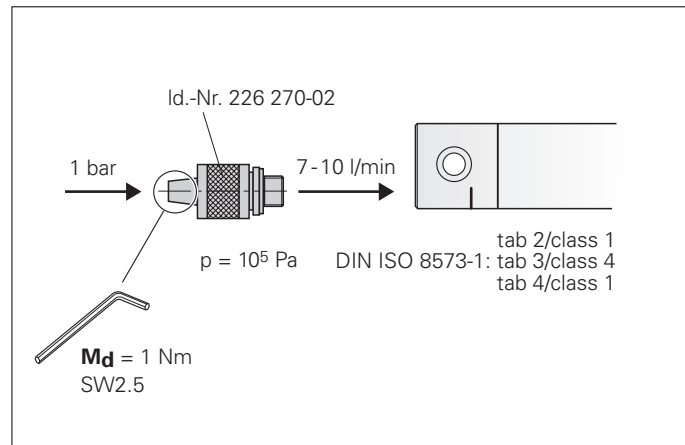
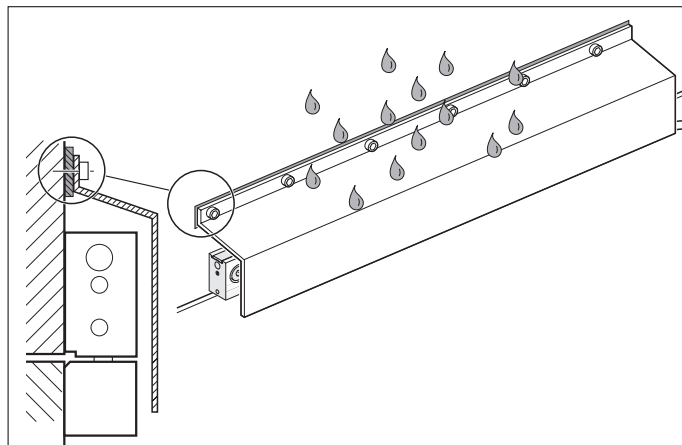
If grounding problems occur, ground also the end piece or mounting spar!

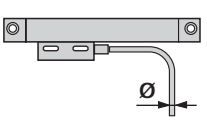
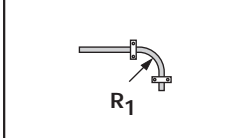
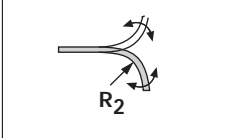
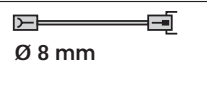
En cas de problèmes de mise à la terre, mettre aussi l'embout ou le rail de montage à la terre!


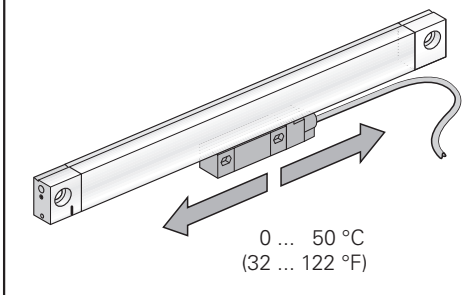
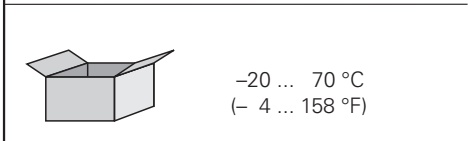
Nel caso di problemi di messa a terra, mettere a terra anche il blocchetto terminale o la guida di montaggio!

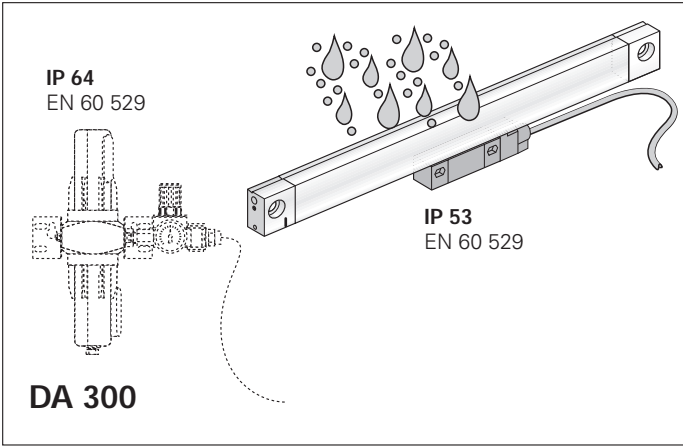
¡En caso de problemas de tierras, poner a tierra adicionalmente la pieza final o la guía de montaje!

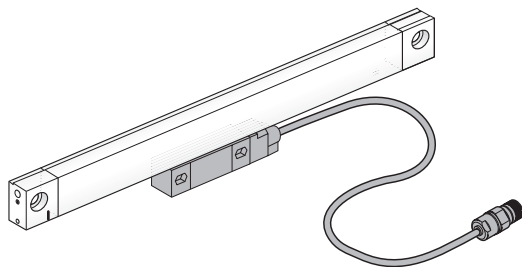




		
Ø 6 mm	$R_1 \geq 20 \text{ mm}$	$R_2 \geq 75 \text{ mm}$
Ø 10 mm	$R_1 \geq 35 \text{ mm}$	$R_2 \geq 75 \text{ mm}$
 Ø 8 mm	$R_1 \geq 40 \text{ mm}$	$R_2 \geq 100 \text{ mm}$

 °C (°F)	 0 ... 50 °C (32 ... 122 °F)
	 -20 ... 70 °C (- 4 ... 158 °F)





RS-485



Request

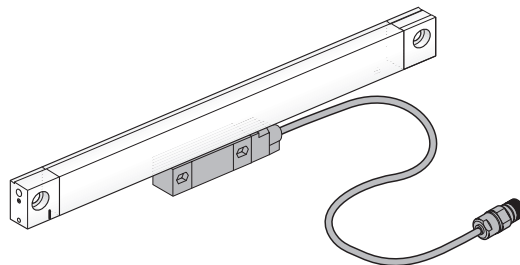
Request



U_P = 5 V ± 5 % (Remote Sensing)
(max. 300 mA)



EN 50 178/4.98; 5.2.9.5
IEC 364-4-41: 1992; 411(PELV/SELV)
(siehe, see, voir, vedi, véase
HEIDENHAIN D 231 929)



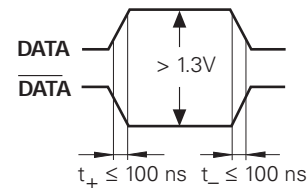
DATA

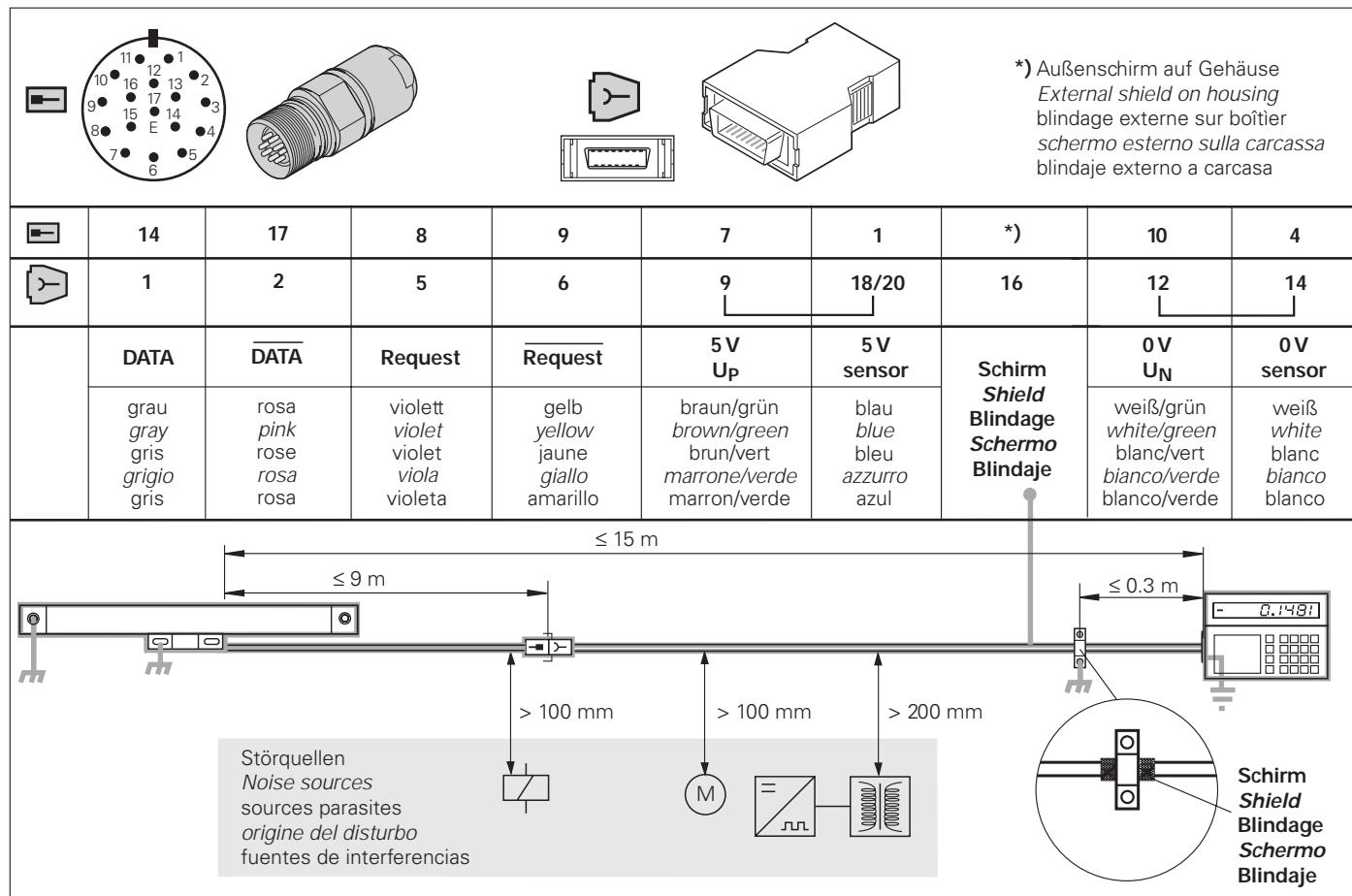
DATA



RS-485

RS-485







Um einen möglichst geringen Spannungsabfall auf dem Kabel zu bekommen, ist es empfehlenswert Versorgungsspannung und Sensorleitung (Pin 9 mit Pin 18/20 und Pin 12 mit Pin 14/16) in der Folgeelektronik zu verbinden.

To reduce voltage drop in the cable, we recommend connecting the power supply with the sensor line (pin 9 with pin 18/20 and pin 12 with pin 14/16) in the subsequent electronics.

Pour que la chute de tension sur le câble soit aussi faible que possible, il est conseillé de relier dans l'électronique consécutive la tension d'alimentation à la ligne de retour (plot 9 sur plot 18/20 et plot 12 sur plot 14/16).

Per ridurre al minimo il calo di tensione sul cavo, si consiglia di collegare la tensione di alimentazione e la linea sensore all'elettronica successiva (Pin 9 con Pin 18/20 e Pin 12 con Pin 14/16).

A fin de evitar una caída de tensión excesiva en el cable, se recomienda unir en la electrónica subsiguiente la línea de alimentación con la línea sensor (pin 9 con pin 18/20, y pin 12 con pin 14/16).

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e-mail: service.nc-pgm@heidenhain.de

PLC programming ☎ +49 (86 69) 31-31 02

e-mail: service.plc@heidenhain.de

Lathe controls ☎ +49 (7 11) 95 28 03-0

e-mail: service.hsf@heidenhain.de

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